

REMARKS

The Official Action, dated September 28, 2004, has been received and its contents carefully noted. Applicants initially wish to thank Examiner Hoffmann for the time provided during the telephone interview of January 26, 2005 to discuss the claims of the present application in view of the current rejections. Claims 8 and 10-14 were pending. By the present amendment, claims 8 and 10 have been amended and claims 11-14 have been cancelled. Thus, claims 8 and 10 remain pending in the application. Accordingly, it is respectfully requested that the foregoing amendment be entered and fully considered by the Examiner.

Please note that Applicants have amended the ranges recited in claims 8 and 10 in order to place them back into their originally intended form as filed. It appears that during prosecution the symbol " \leq " was inadvertently changed to "<".

On page 2 of the Office Action, claims 8 and 10-14 are rejected under 35 U.S.C. 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In view of the amendments to claims 8 and 10 and the cancellation of claims 11-14, Applicants respectfully traverse this rejection. Specifically, independent claim 8 and dependent claim 10 have been amended to remove "and/or" and "is/are" references. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection.

On page 3 of the Office Action, claims 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,917,109 to Berkey in view of U.S. Patent No. 4,820,320 to Baumgart. In view of the amendments provided above and the comments to follow, Applicants respectfully traverse this rejection.

The rejection alleges that Berkey discloses most of the presently claimed invention but admits that Berkey does not teach the level of vacuum or "the other parameters." To solve the deficiencies of Berkey, the Baumgart patent is supplied to allegedly teach that controlling the level of vacuum is important for controlling the eccentricity as well as the heat zone temperature and width. The Office Action then indicates that it would have been obvious to perform routine experimentation to determine the optimal pressure within the tube and that this would result in all possible diameters being "predetermined diameters" and that

there would be numerous possible L2 values from which one could choose to achieve the claim.

Applicants note that to establish a *prima facie* case of obviousness, (1) there must be some suggestion or motivation (either in the references themselves or in the knowledge generally available to one of ordinary skill in the art) to combine the reference teachings; (2) there must be a reasonable expectation of success; and (3) the prior art references when combined must teach or suggest all claim limitations. See MPEP § 2142-2143.

Applicants submit that the rejection fails to satisfy the required three elements to establish a *prima facie* case of obviousness. Initially, Applicants note that neither Berkey or Baumgart teach that “the pressure reduction level and heating temperature are set so that $0.1 \leq L1/(L1+L2) \leq 0.8$ where L1 is length from the position at which the glass rod is elongated to the position at which the glass pipe is caused to collapse on the glass rod, and L2 is the length from the position at which the glass pipe is caused to collapse on the glass rod to a position at which the outer diameter of the glass pipe becomes a predetermined diameter”, as recited in independent claim 8.

To address this deficiency, however, the Office Action alleges that “it is not invention to optimize a result effective variable through routine experimentation” (see page 3 of the Office Action). The Examiner’s apparent suggestion that one of skill would know from the teachings of Berkey and Baumgart to optimize the pressure reduction level and heating temperature as recited in claim 8, is respectfully traversed. Applicants maintain that the Examiner is attempting to apply an “obvious to try” rejection, which has been discredited by the Federal Circuit.

Routine experimentation is not sufficient for providing the required motivation for an obviousness rejection. Nothing in the prior art cited by the Examiner would even suggest that the combination of Berkey and Baumgart would be successful in achieving the claimed range as recited in the present invention. “Obviousness does not require absolute predictability but a reasonable expectation of success is necessary. In re Clinton, 188 U.S.P.Q. 365, 367 (C.C.P.A. 1976)(emphasis added). Both the suggestion of the invention and the expectation of success must be found in the prior art, not in Applicants’ disclosure. Selective hindsight is not appropriate to design experiments in order to reach the claimed invention. In re Dow Chemical, 5 U.S.P.Q.2d 1529, 1531-32 (Fed. Cir. 1988). As a result, Applicants respectfully

submit that the rejection has failed to provide sufficient motivation from the references to establish a *prima facie* showing of obviousness without referring to Applicants' disclosure.

Additionally, Applicants respectfully submit that the claimed range has a significant increase in performance quality, specifically with regard to fiber eccentricity amount and bubbles (per 100mm of perform). As shown in FIG. 8 and described at page 26, line 19 to page 27, line 6 of the present specification, the claimed invention specifically provides advantages of reduced bubble production and fiber eccentricity. Applicants respectfully submit that the prior art to Berkey and Baumgart do not recognize such advantages. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection.

Moreover, the Office Action appears to also indicate (on page 4 of the Office Action) that the claimed range only shows an intended result. Applicants respectfully traverse this interpretation also. Initially, Applicants note that the pressure reduction level and heating temperature are set so that a ratio resides within a specific range. The ratio is based on the length (L1) from the position at which the glass rod is elongated to the position at which the glass pipe is caused to collapse on the glass rod and the length (L2) from the position at which the glass pipe is caused to collapse on the glass rod to a position at which the outer diameter of the glass pipe becomes a predetermined diameter. Applicants submit that the claimed ratio is based upon structural features of the glass rod and glass pipe set forth in the present invention and is not merely an intended result. Moreover, the same argument applies for the claimed range set forth in dependent claim 10. Specifically, with regard to claim 10, a ratio of diameters are claimed to be within a range. Applicants respectfully submit that, as discussed above, the prior art to Berkey and Baumgart do not disclose the adjustment of the pressure reduction level to attain the advantageous results with regard to fiber eccentricity and bubble production and thus do not teach or suggest the presently claimed invention.


Accordingly, for at least the reasons provided above, Applicants respectfully request reconsideration and withdrawal of the rejection.

On page 5 of the Office Action claims 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,301,934 to Dobbins or U.S. Patent No. 4,578,096 to Siegmund in view of U.S. Patent No. 4,820,320 to Baumgart. In view of the cancellation of the claims, Applicants respectfully submit that this rejection is rendered moot. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection.

Therefore, in view of the foregoing, it is respectfully requested that the objections and rejections of record be reconsidered and withdrawn by the Examiner, that claims 8 and 10-14 be allowed and that the application be passed to issue.

Should the Examiner believe a conference would be of benefit in expediting the prosecution of the instant application, he is hereby invited to telephone counsel to arrange such a conference.

Respectfully submitted,

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